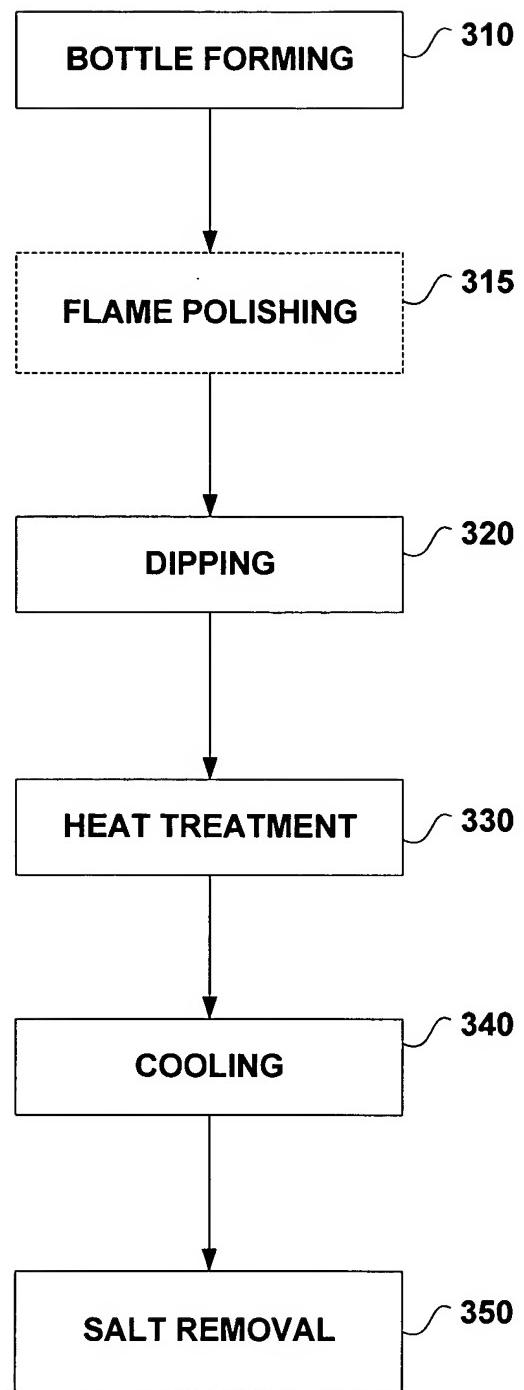


**FIGURE 1**  
**(PRIOR ART)**



**FIGURE 2**

# FLAME POLISHING

Induced Defects (50 micron) on flat plates

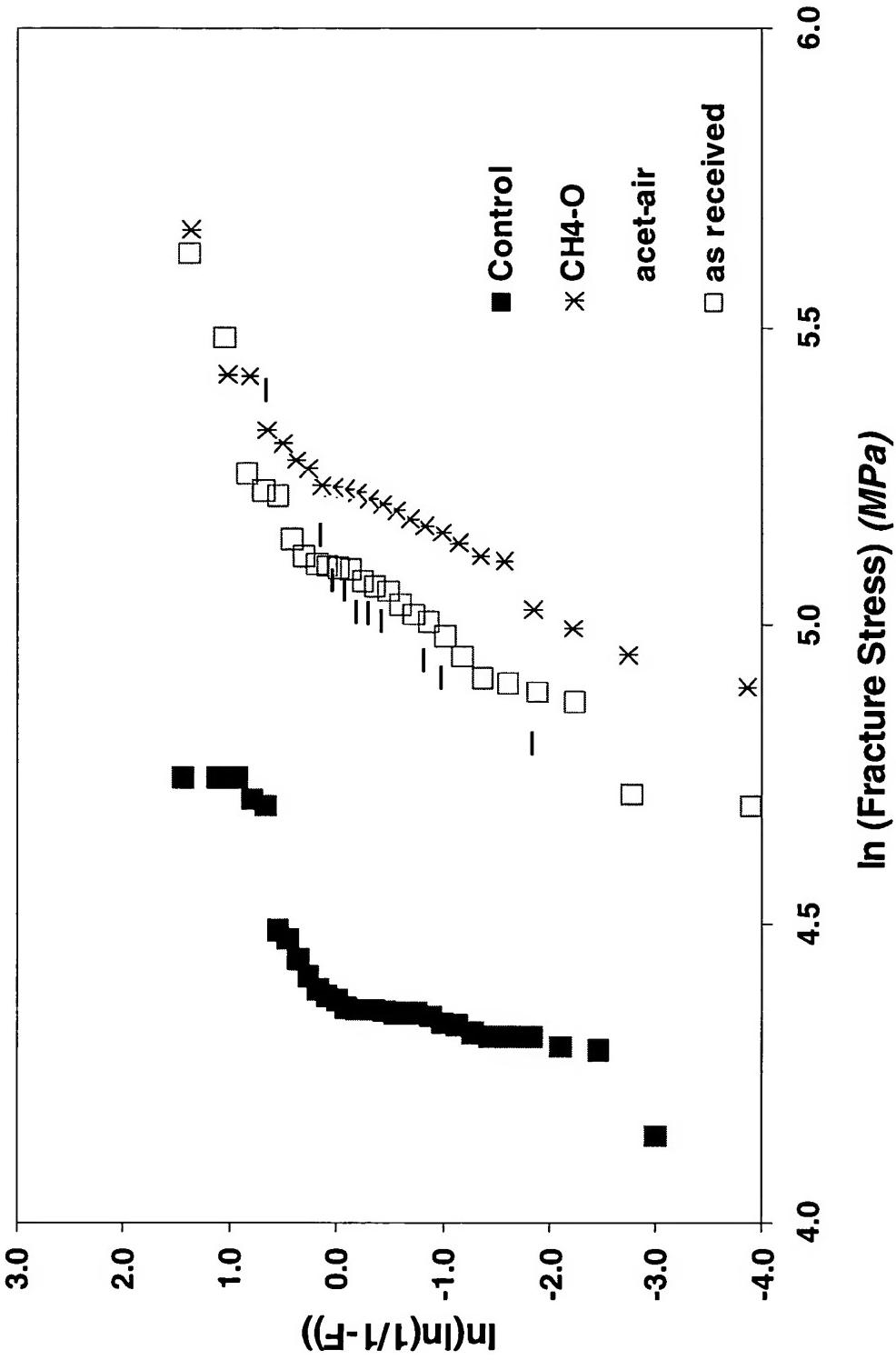
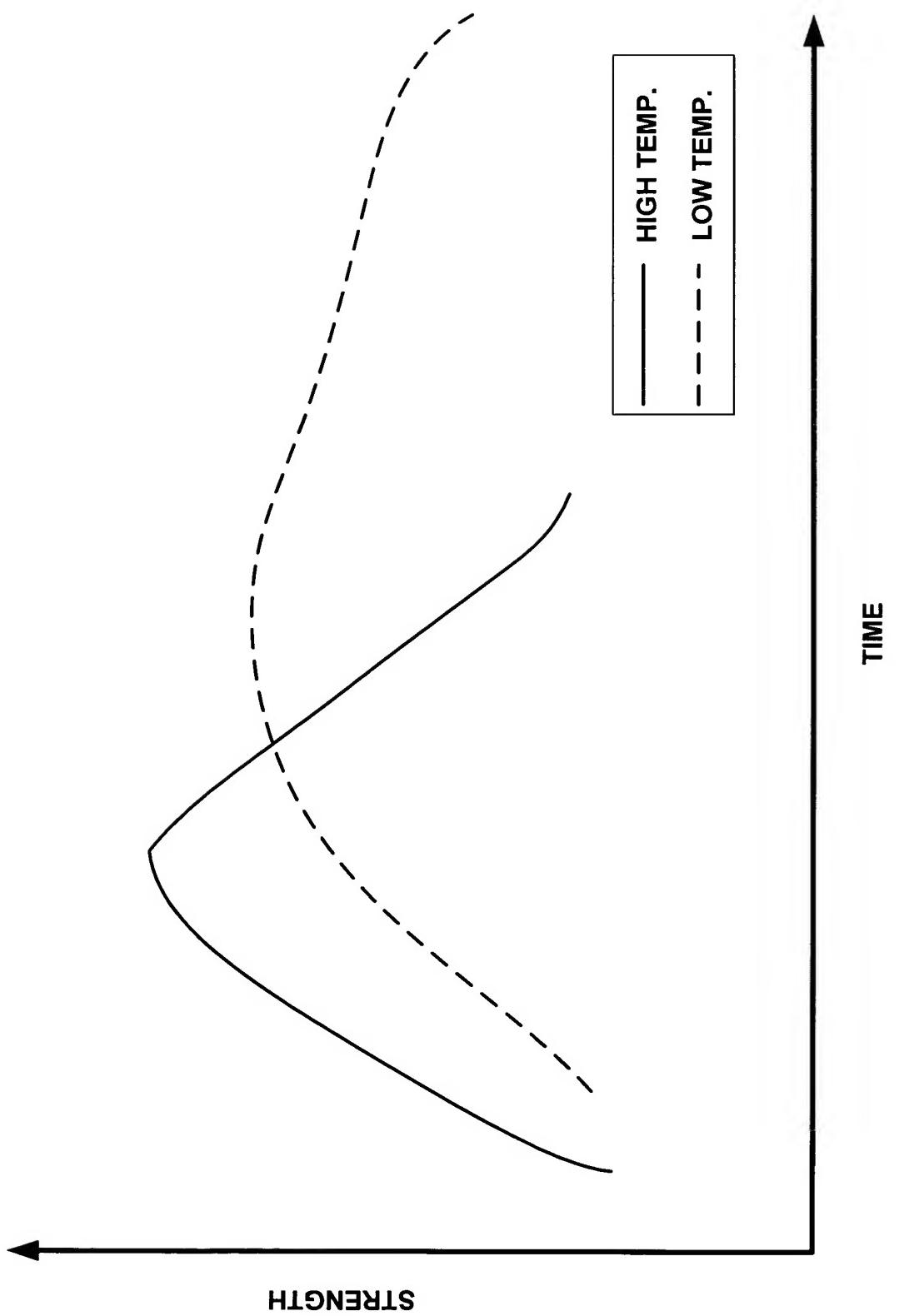
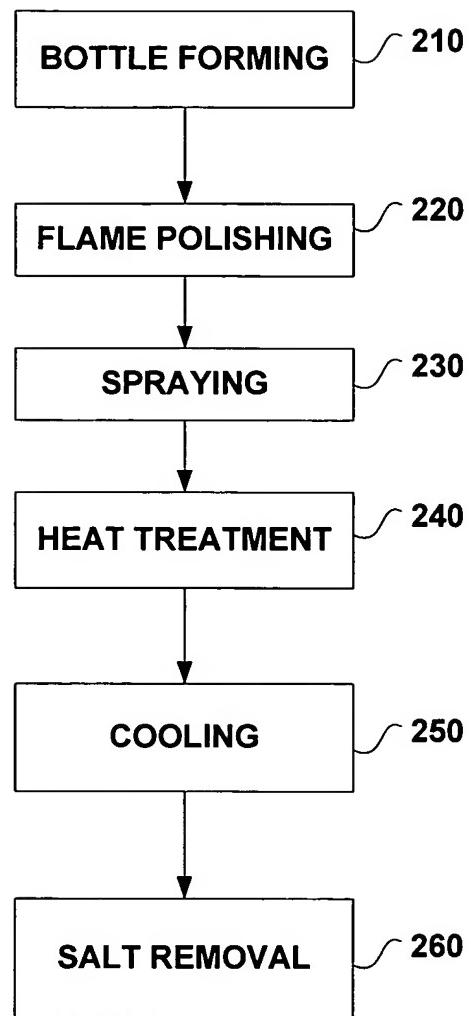


FIGURE 3

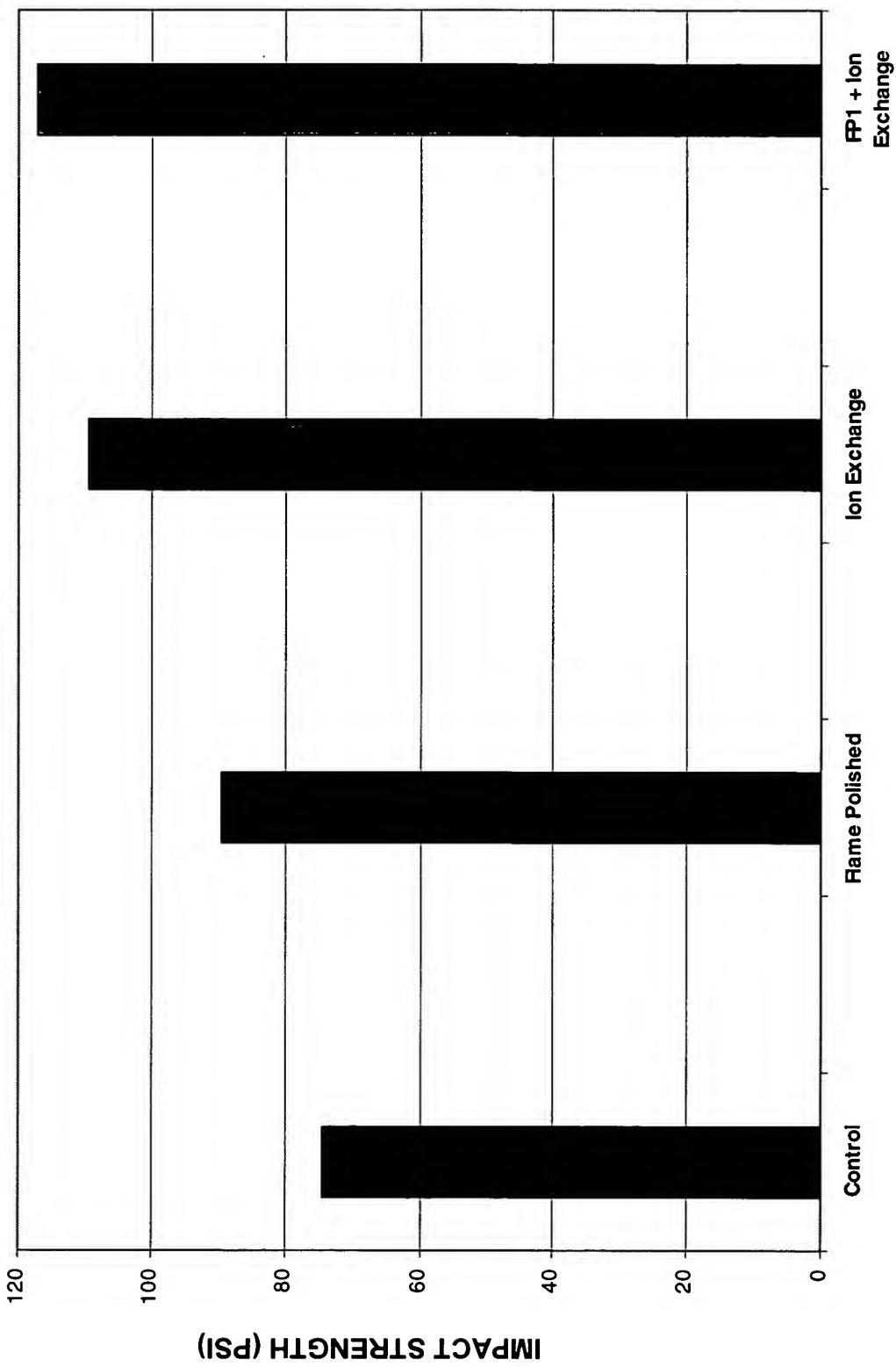


**FIGURE 4**

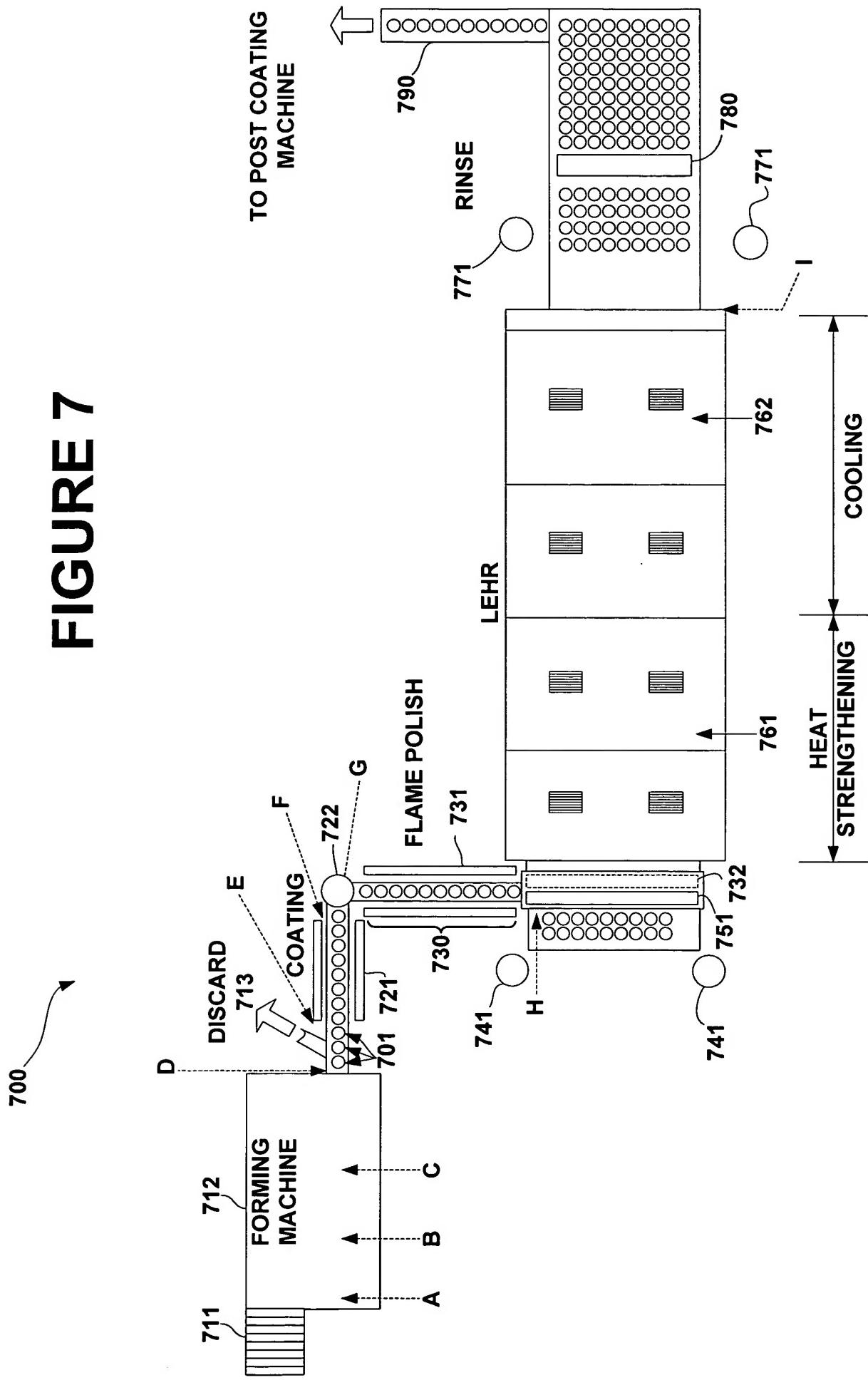


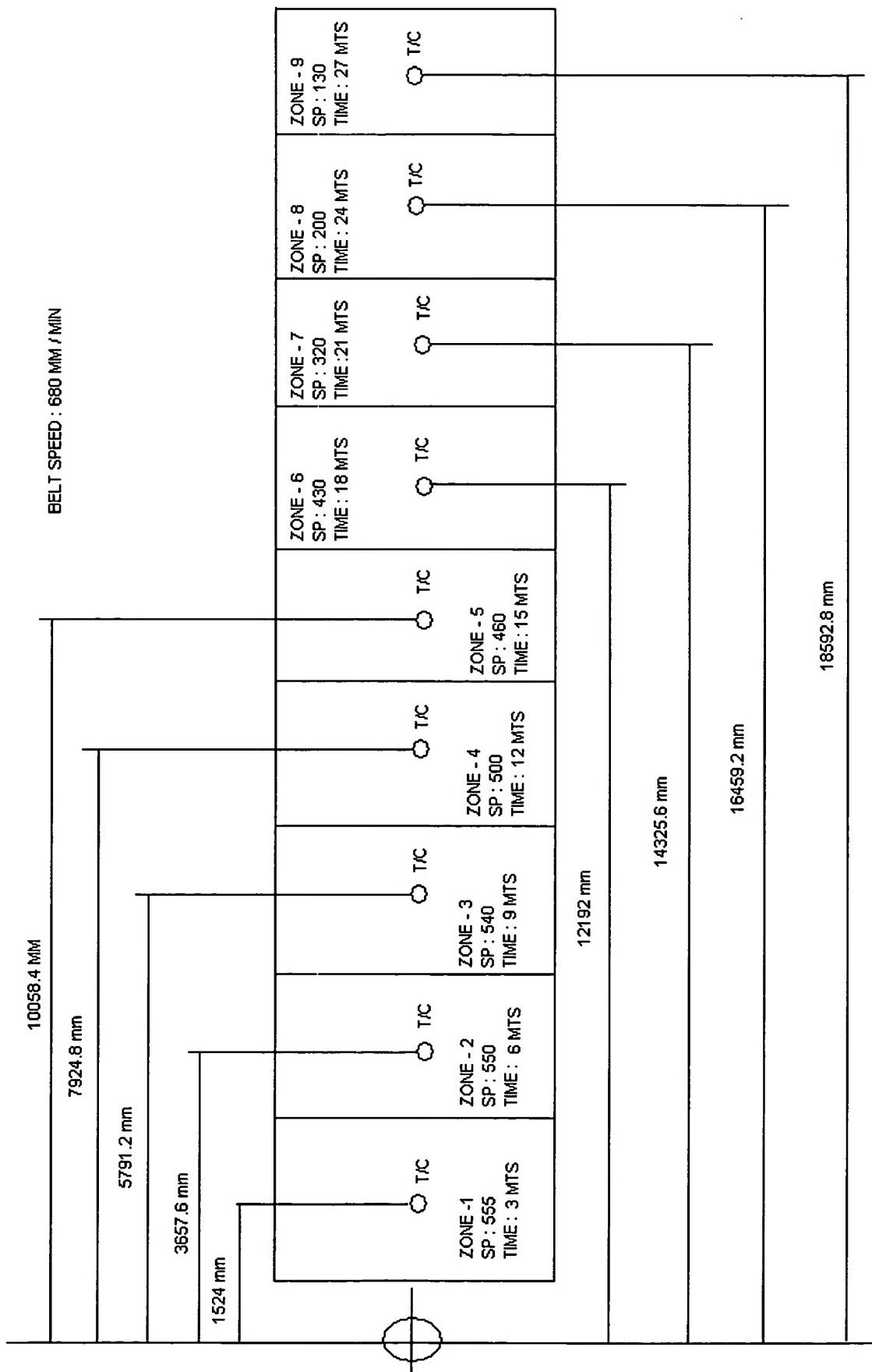
**FIGURE 5**

# FIGURE 6



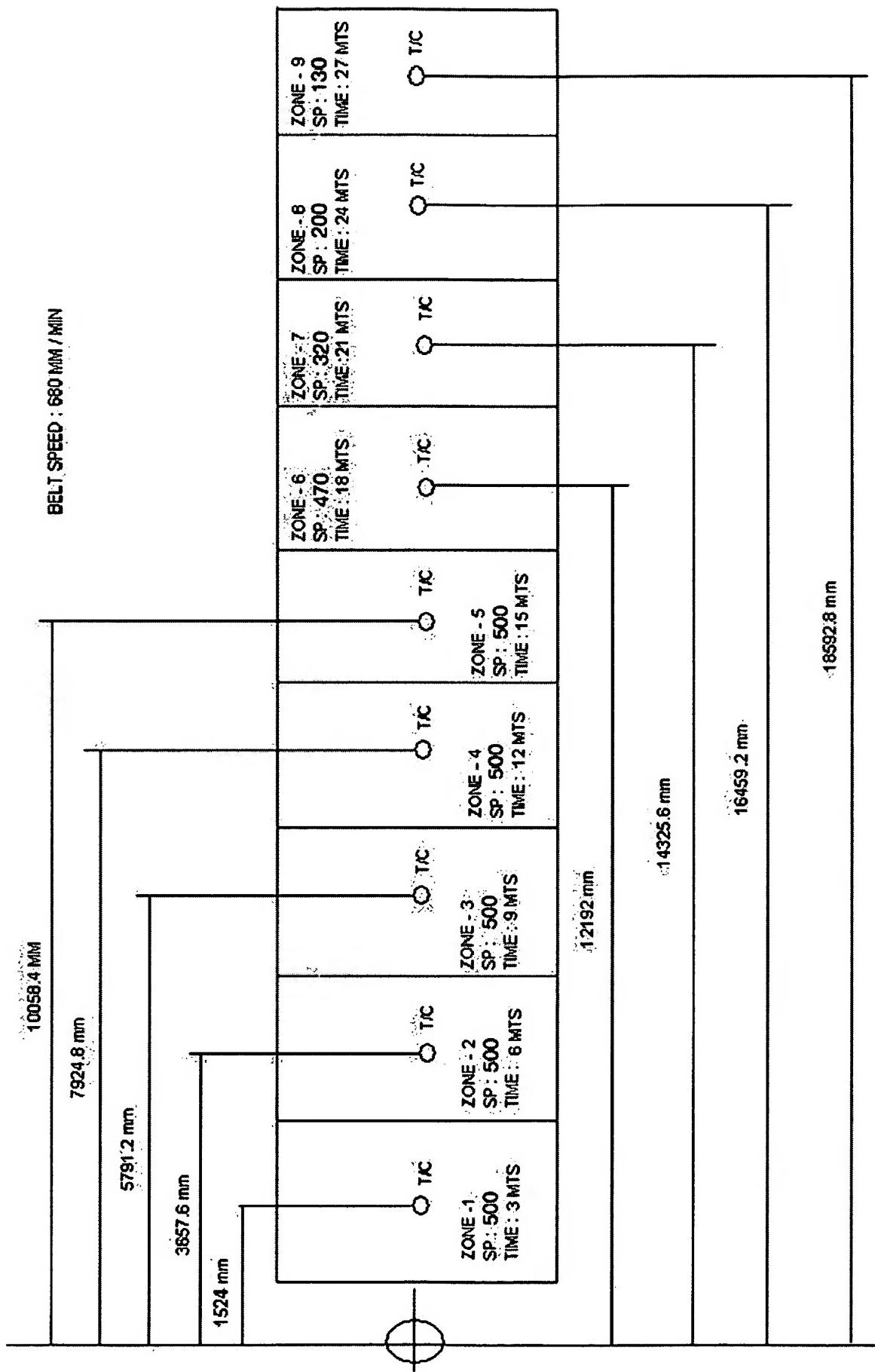
# FIGURE 7

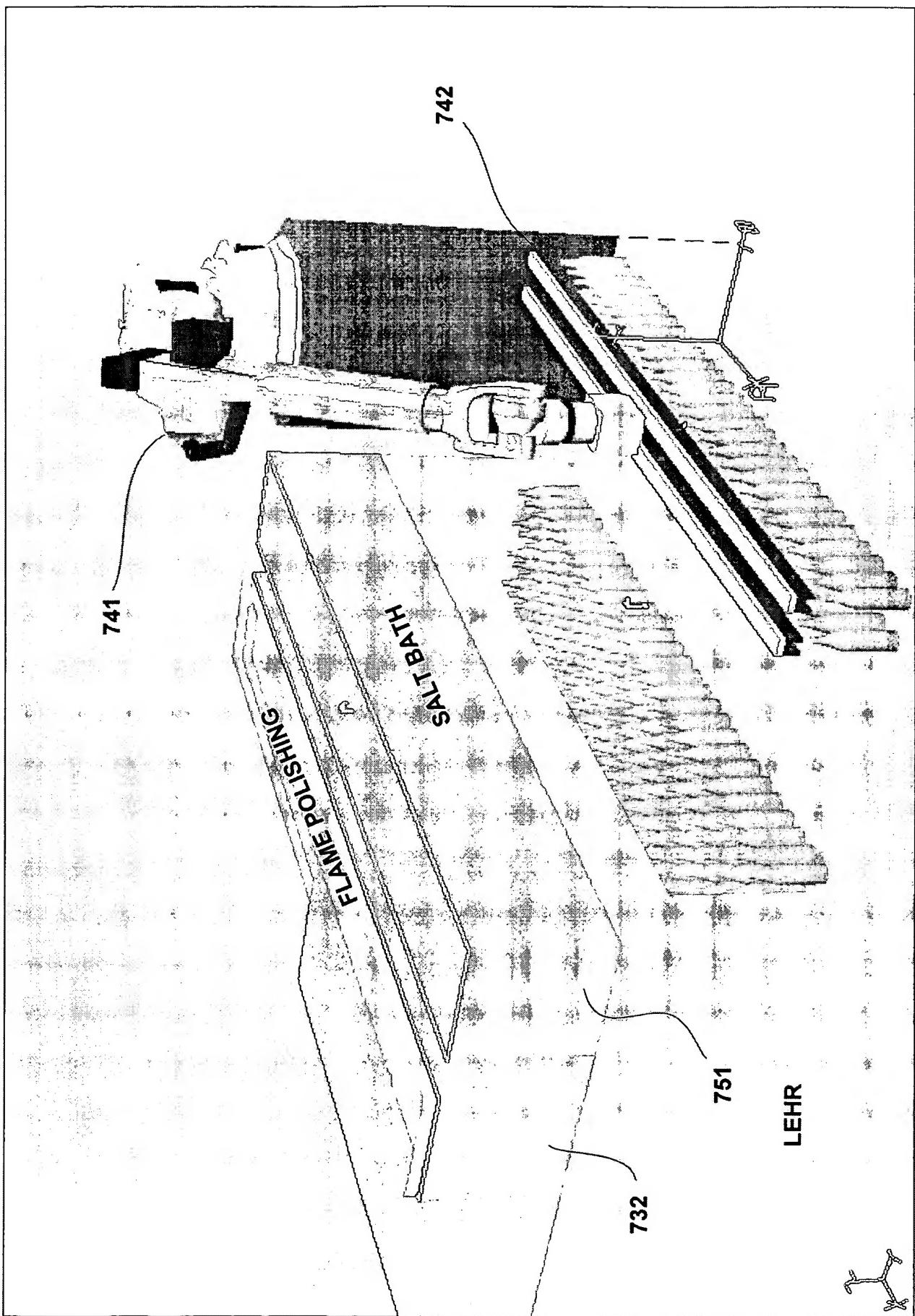




# FIGURE 8A

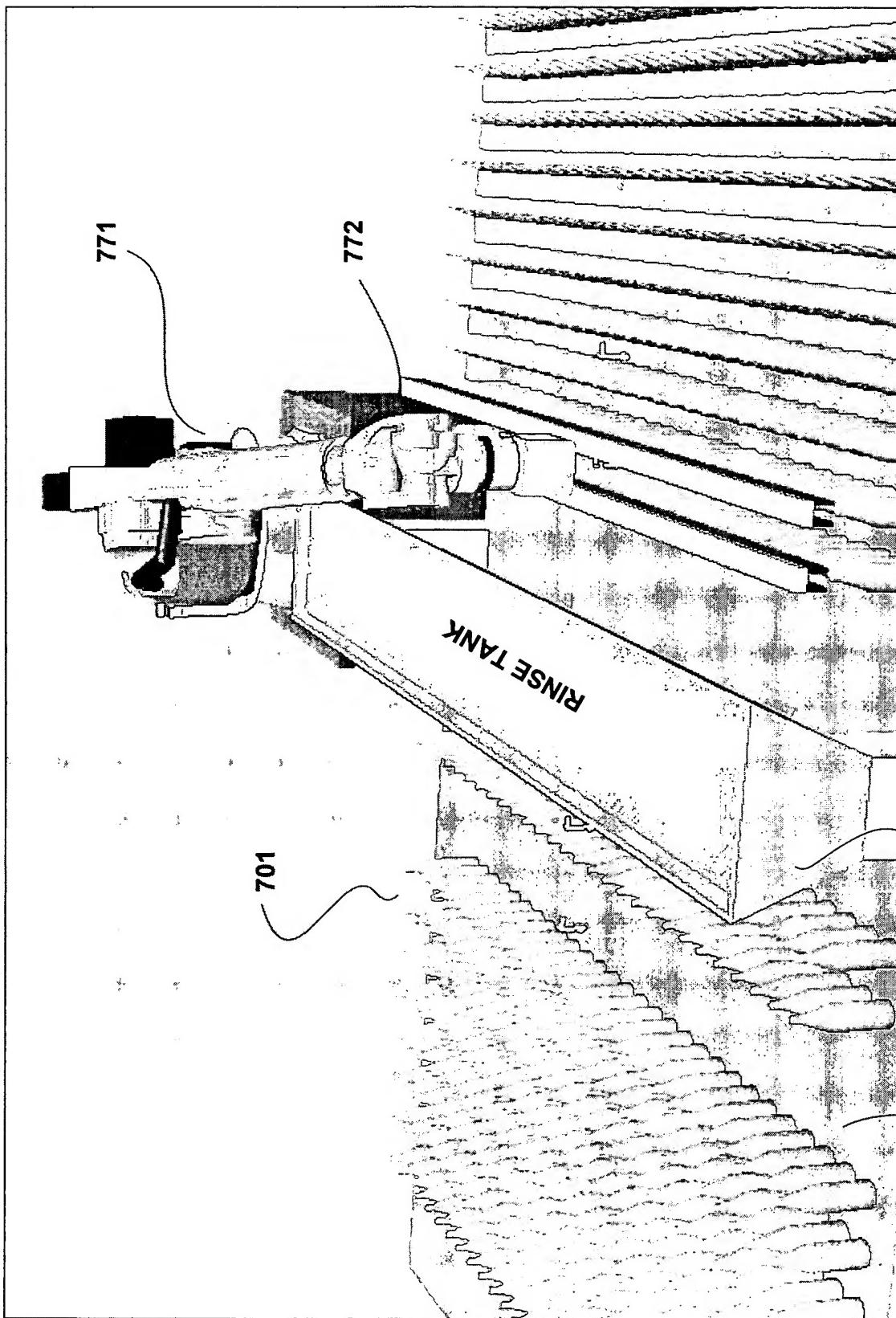
# FIGURE 8B





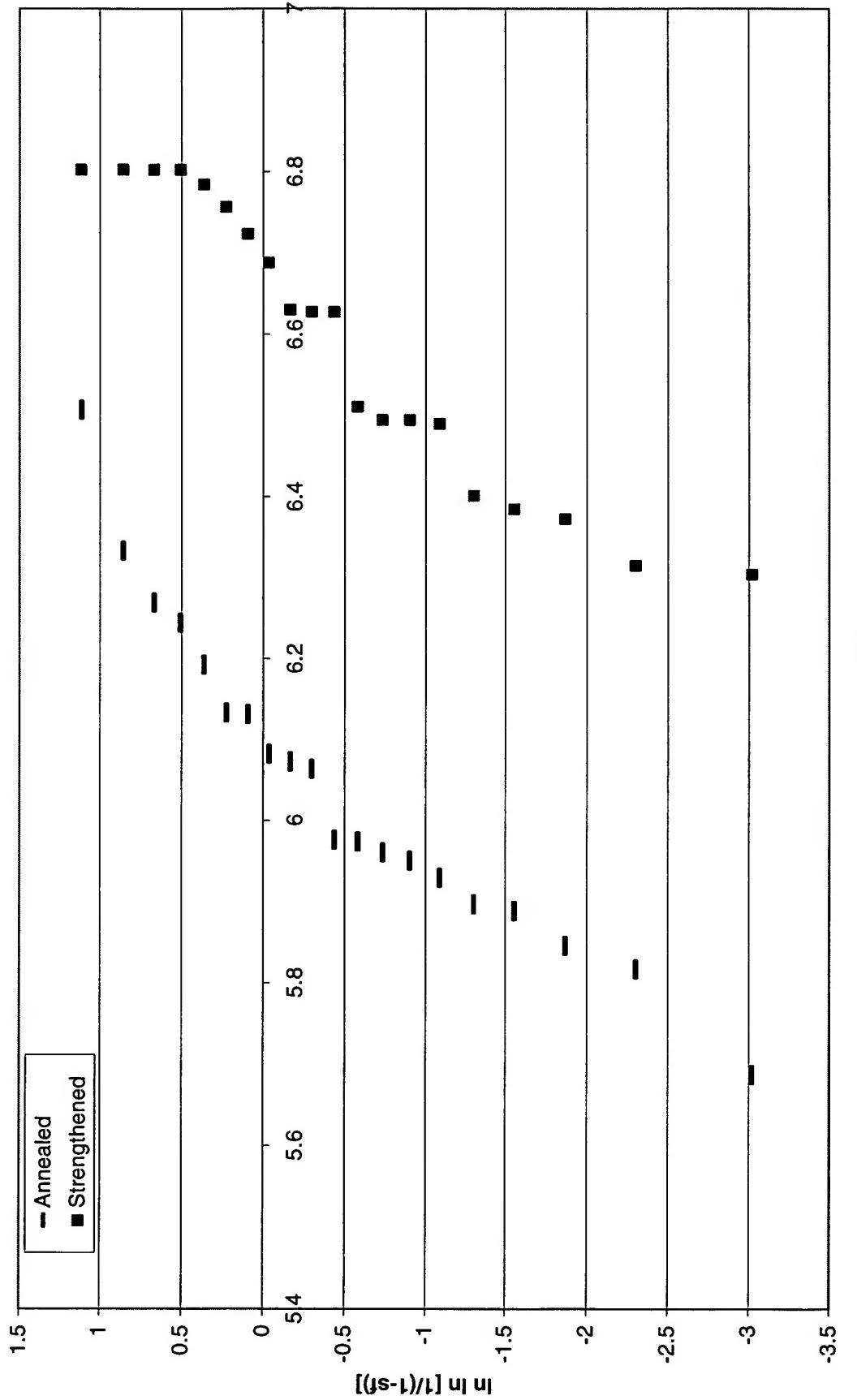
# FIGURE 9

**FIGURE 10**



## RUN NO. 1

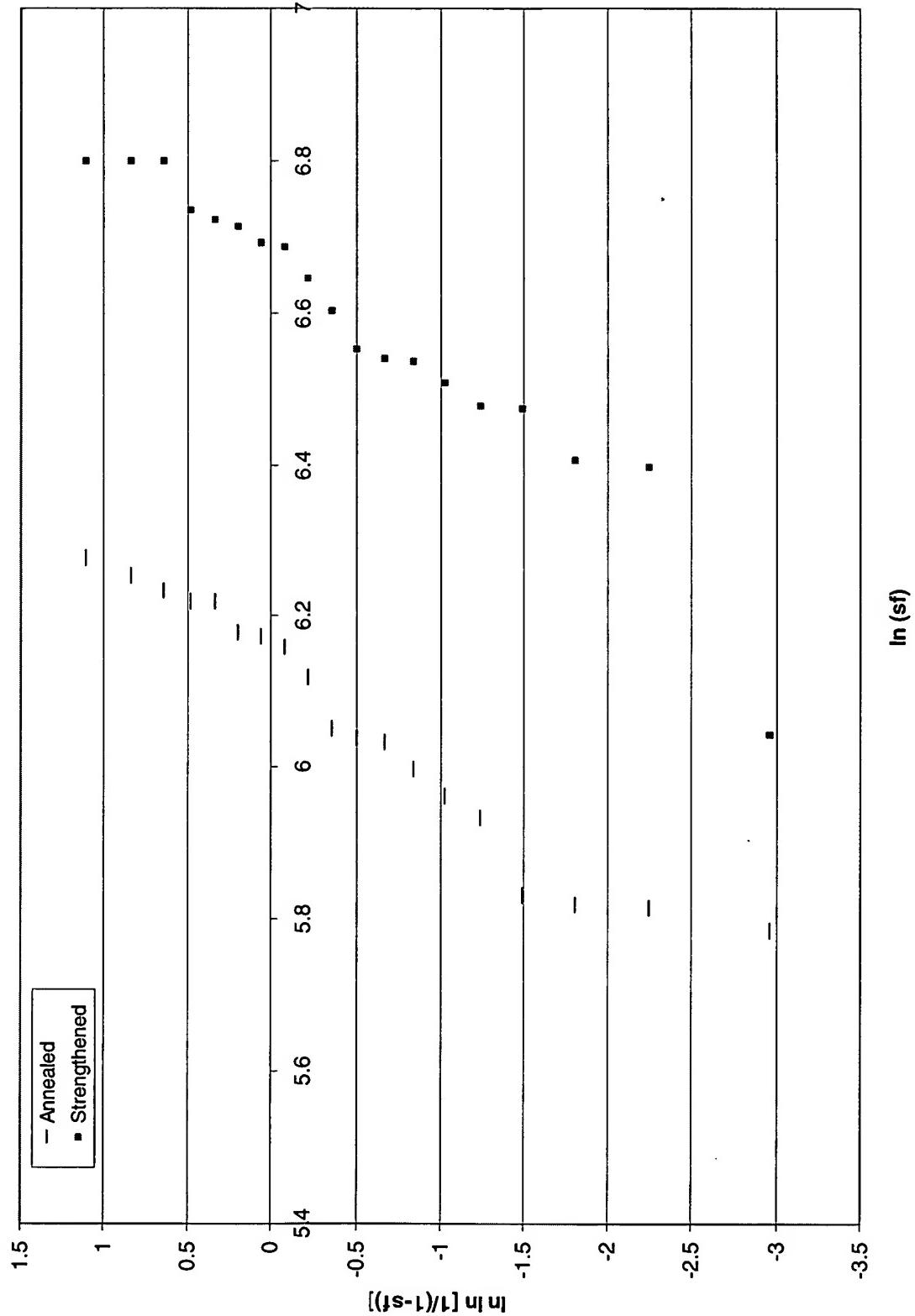
Pre-heat 1 m @ 510°C; dip 600°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 520°C



**FIGURE 11**

## RUN NO. 2

Pre-heat 5 m @ 510°C; dip 630°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 520°C



# FIGURE 12

### RUN NO. 3

Pre-heat 5 m @ 550°C; dip 615°C; Strengthen 20 m @ 500°C

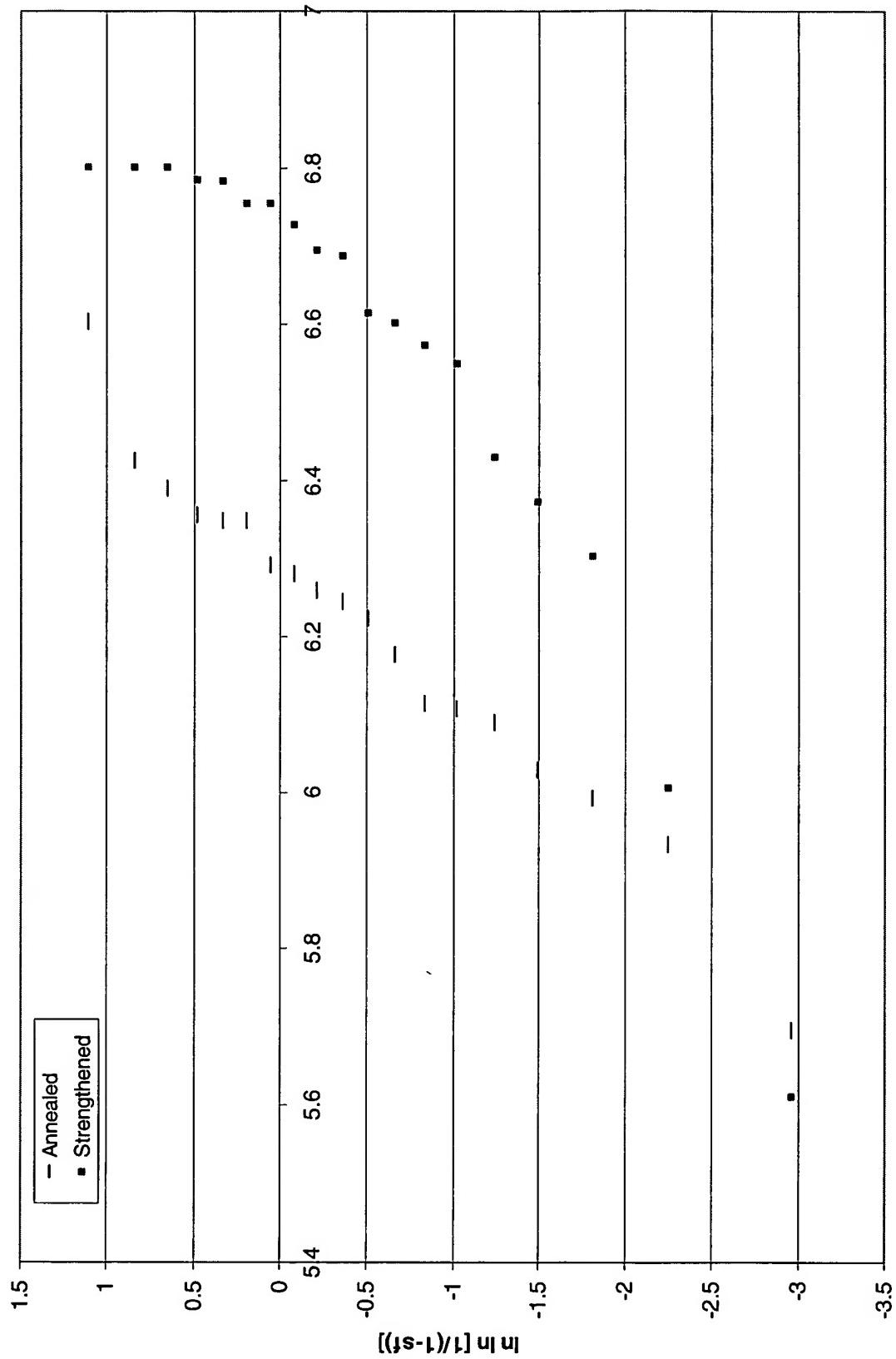
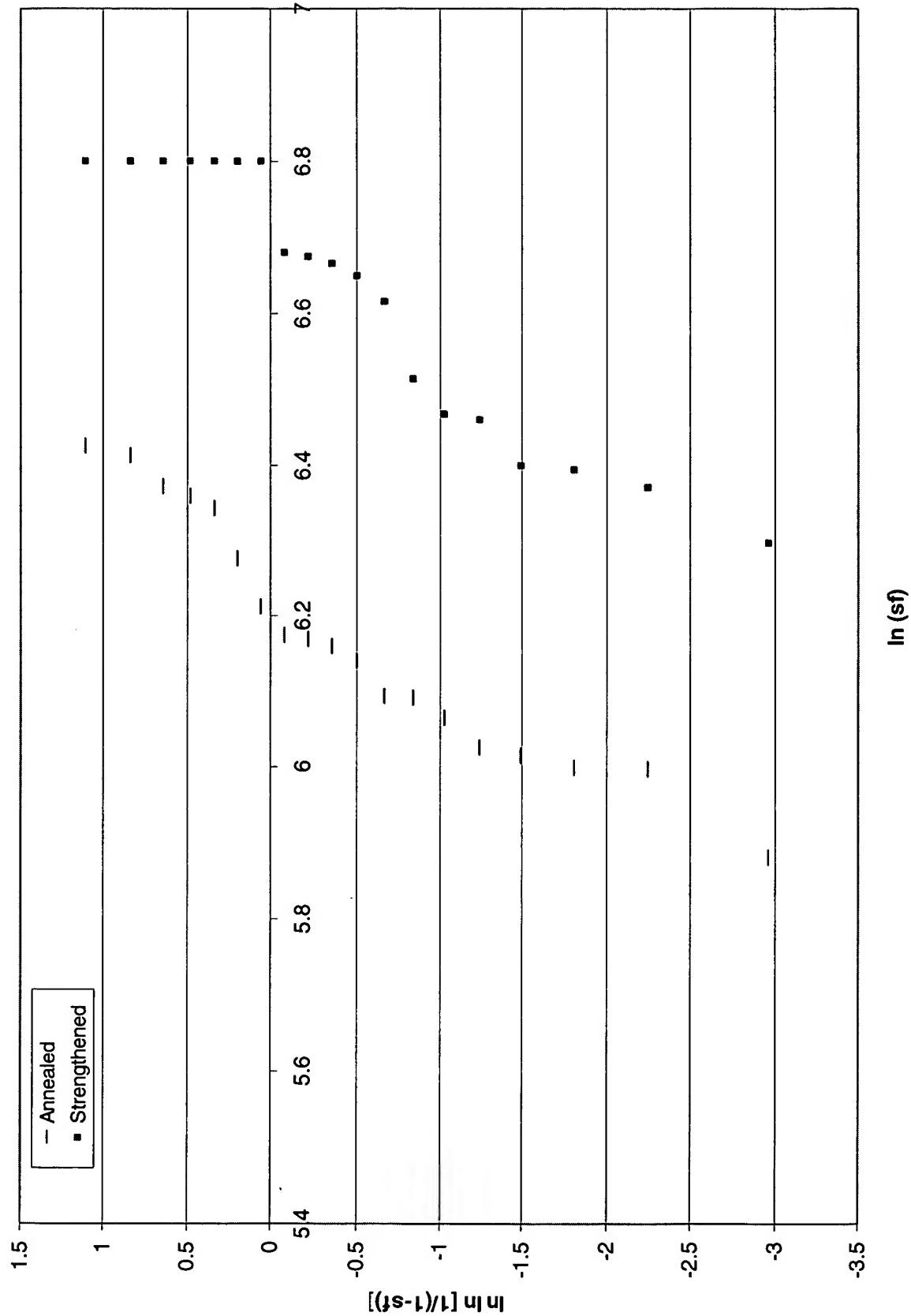


FIGURE 13

## RUN NO. 4

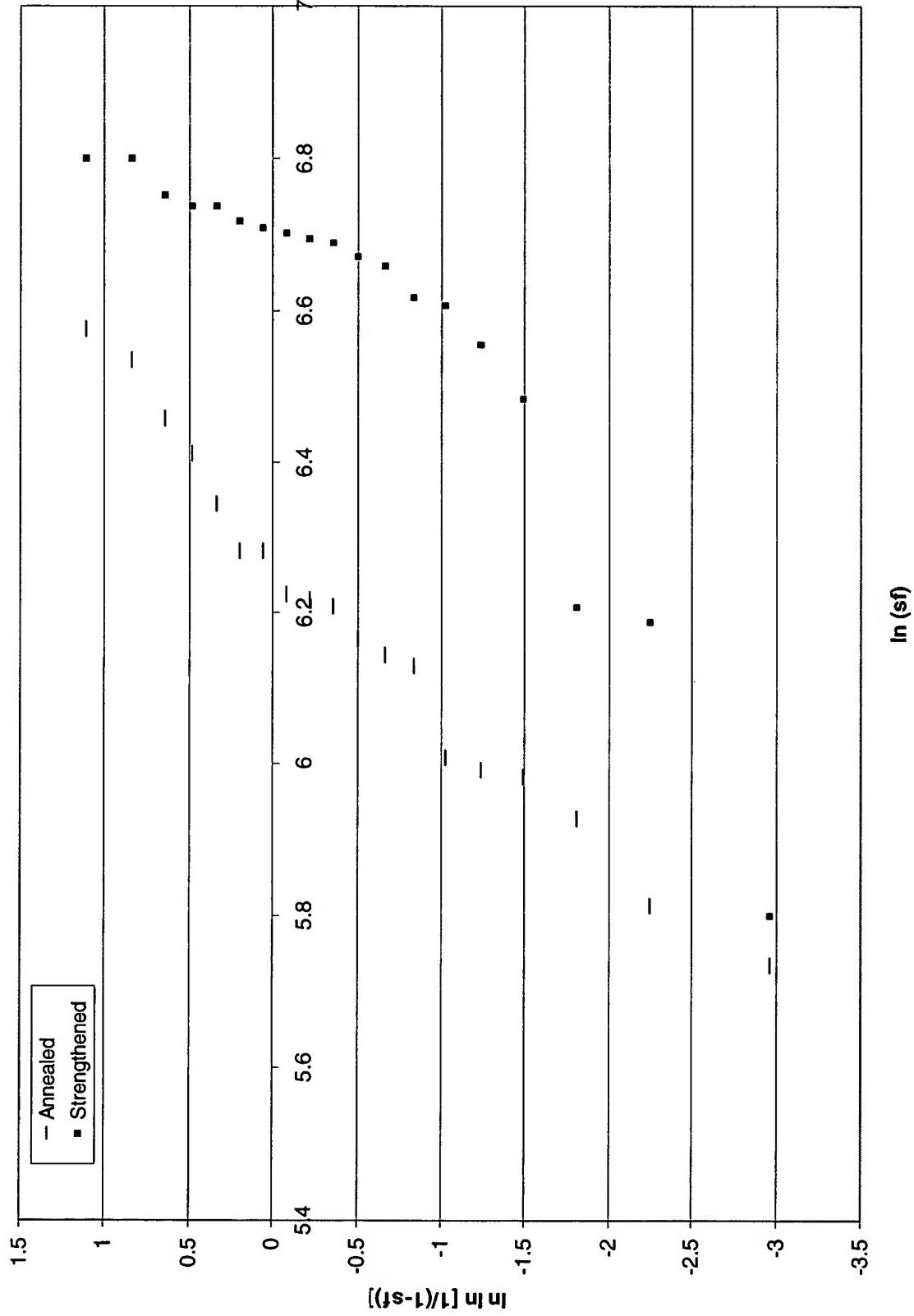
Pre-heat 5 m @ 510°C; dip 600°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 480°C



**FIGURE 14**

## RUN NO. 5

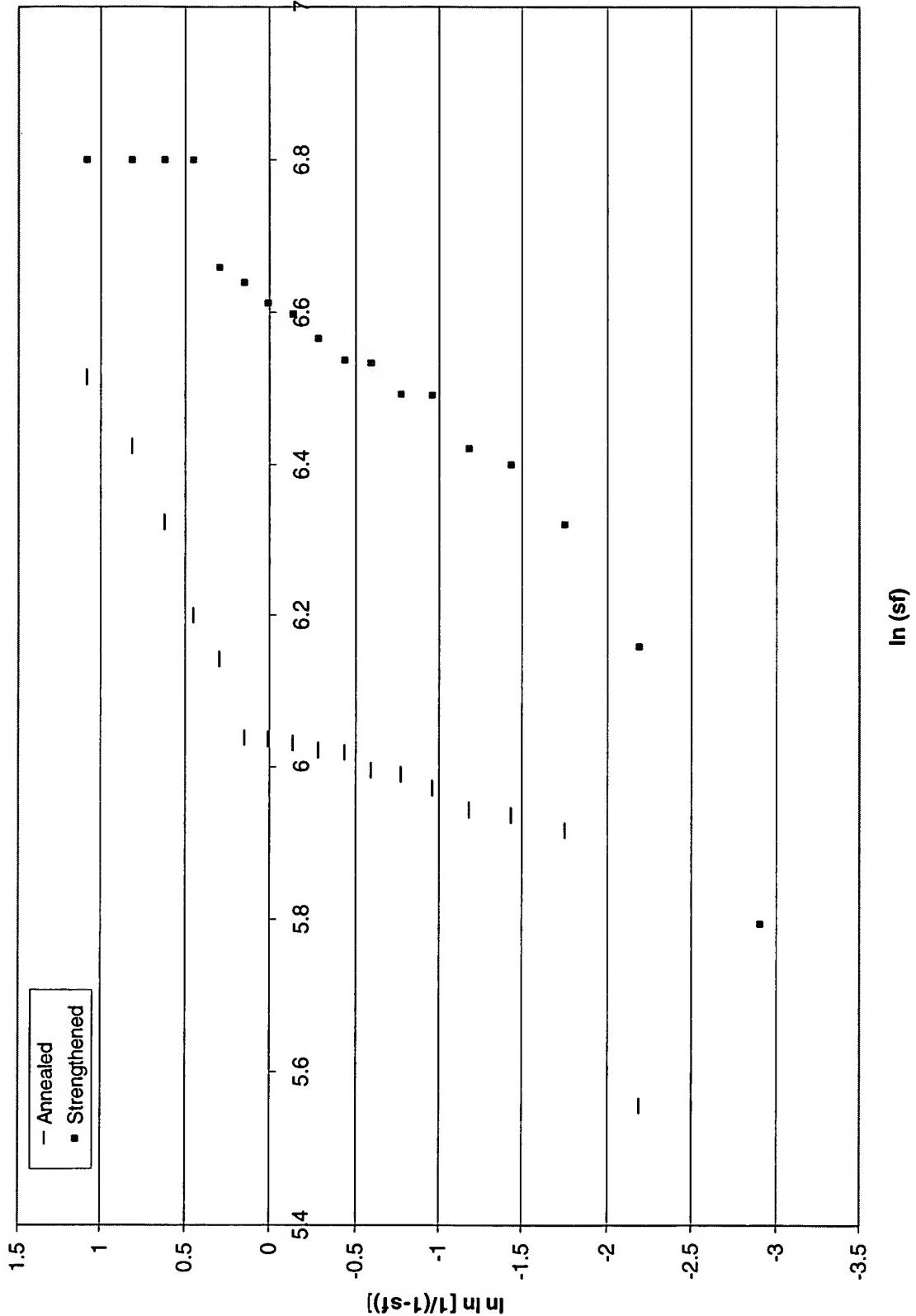
Pre-heat 5 m @ 510°C; dip 600°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 520°C



**FIGURE 15**

## RUN NO. 6

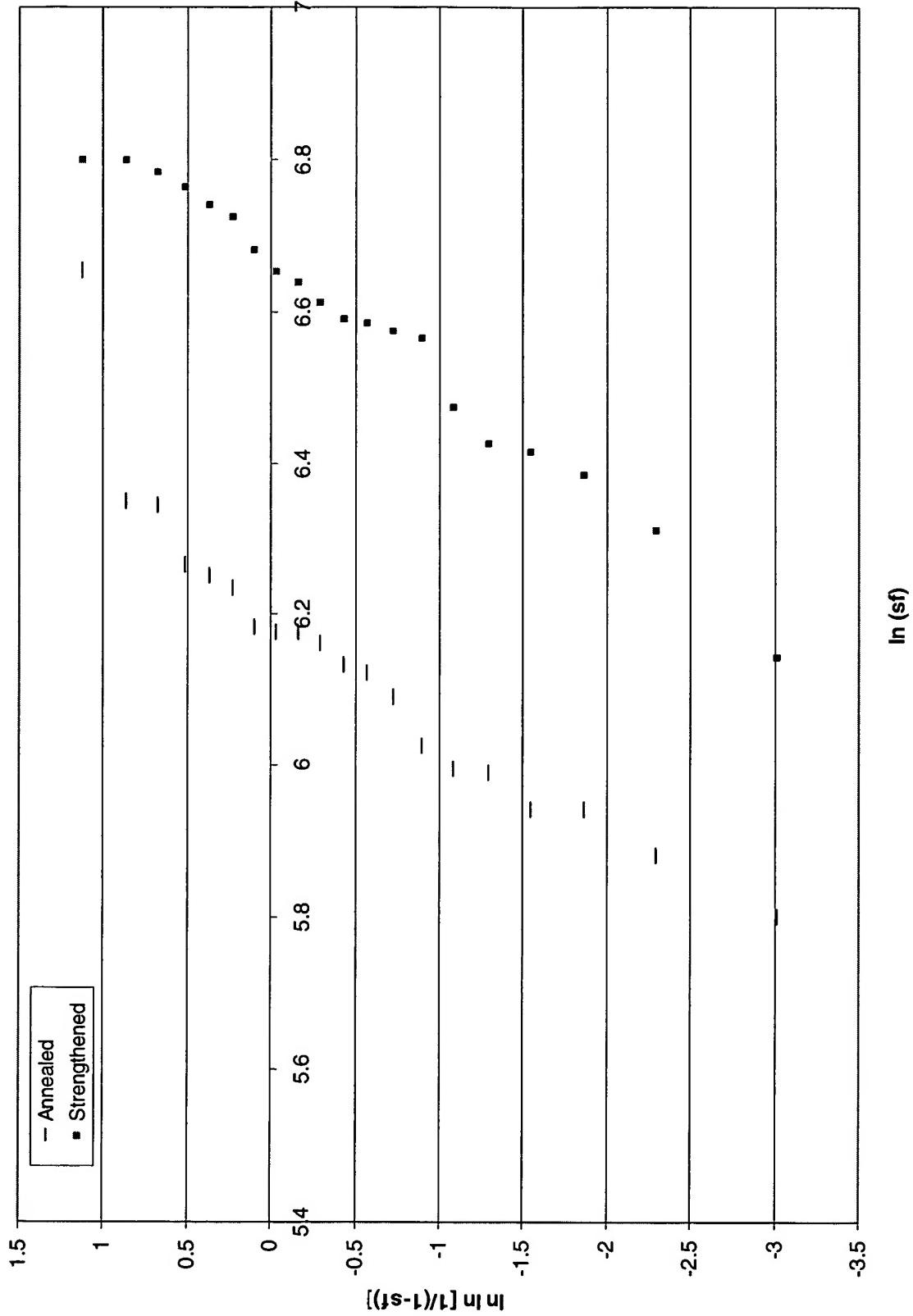
Pre-heat 1 m @ 550°C; dip 615°C; Strengthen 20 m @ 500°C



**FIGURE 16**

## RUN NO. 7

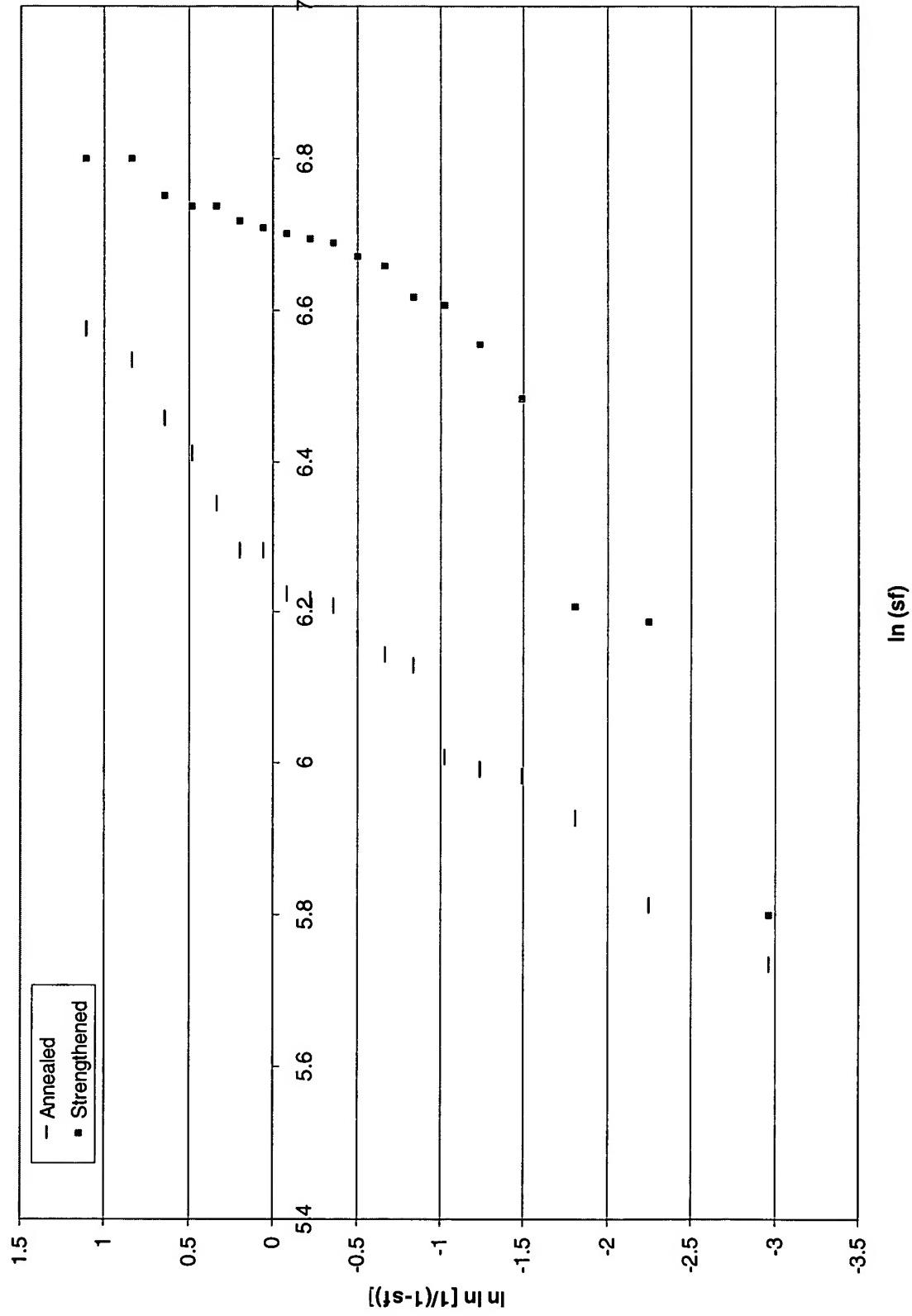
Pre-heat 1 m @ 510°C; dip 600°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 480°C



**FIGURE 17**

## RUN NO. 8

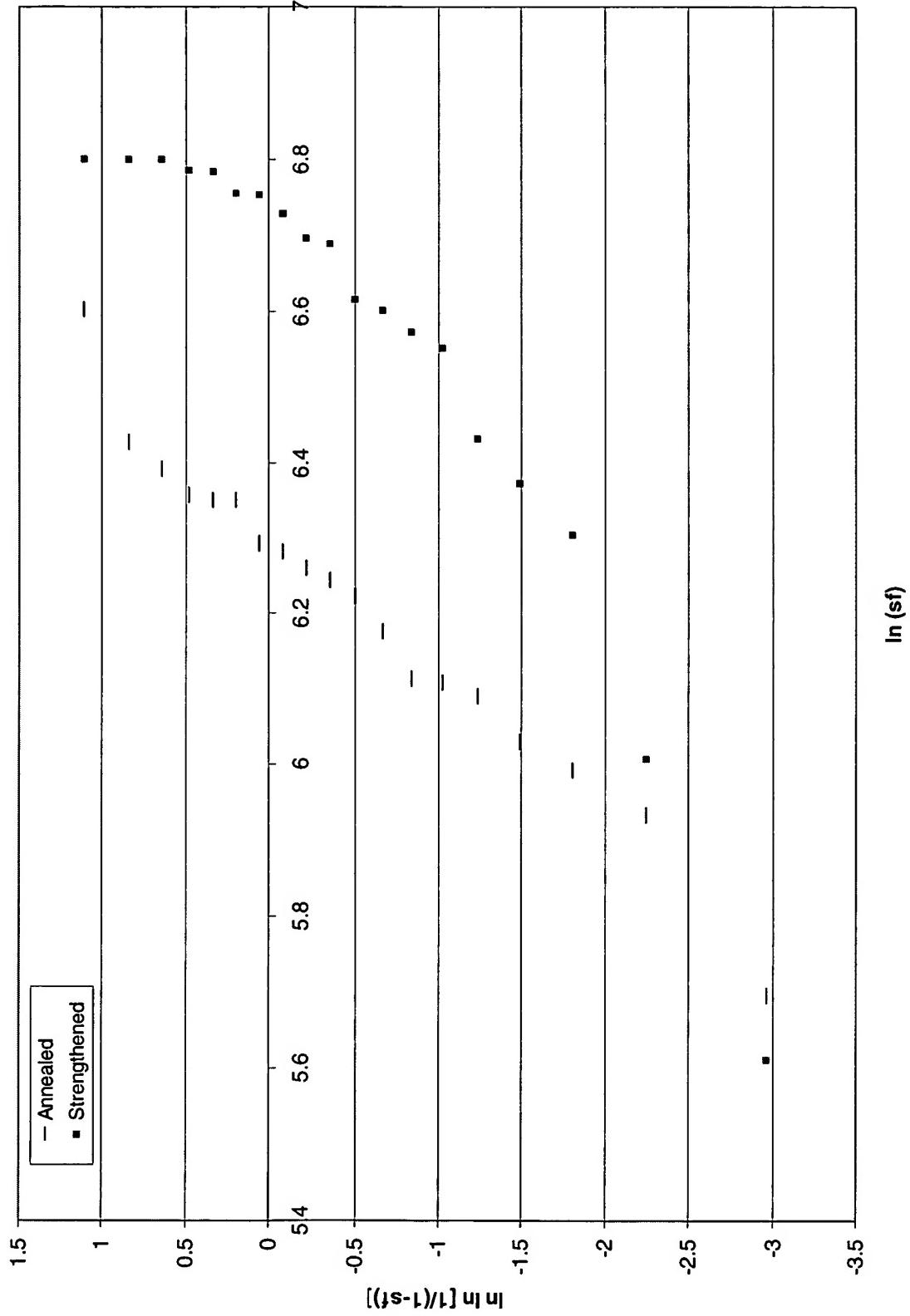
Pre-heat 5 m @ 510°C; dip 600°C; Flame Polish - Side and Bottom; 4 in/sec; Strengthen 20 m @ 520°C



**FIGURE 18**

## RUN NO. 9

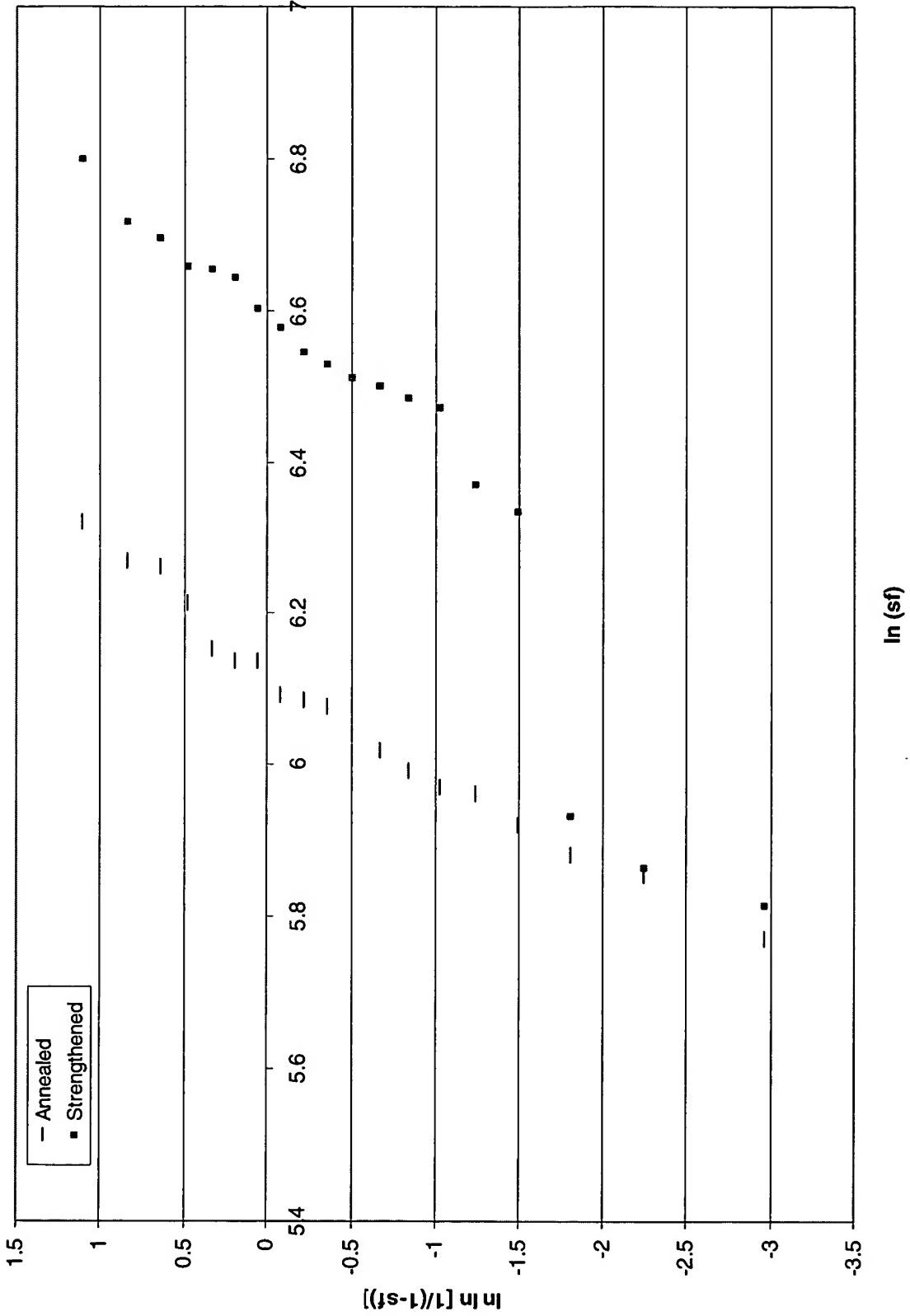
Pre-heat 5 m @ 550°C; dip 615°C; Strengthen 20 m @ 500°C



**FIGURE 19**

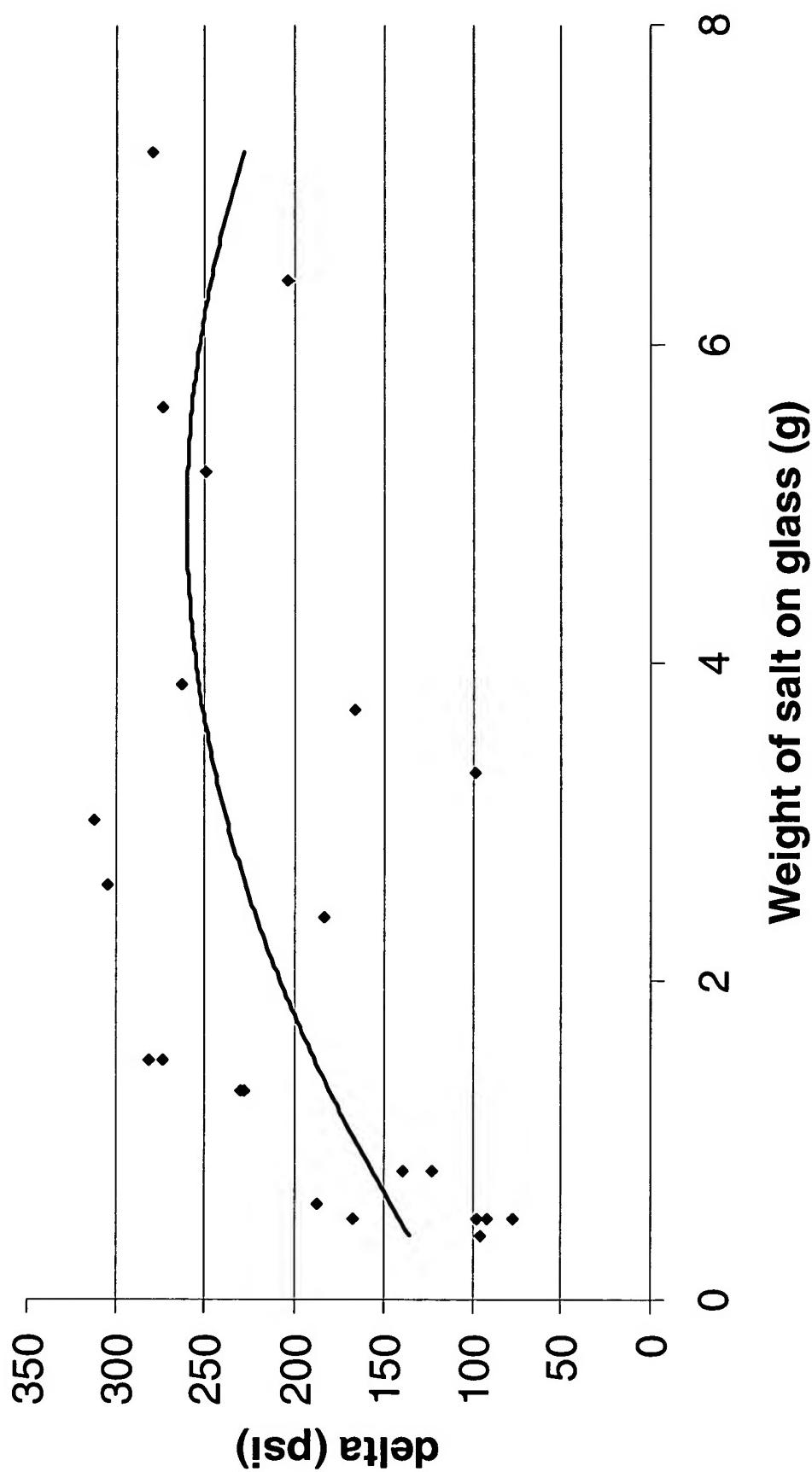
## RUN NO. 10

Pre-heat 5 m @ 550°C; dip 615°C; Strengthen 20 m @ 500°C



**FIGURE 20**

### Weight vs. Increased glass strength



**FIGURE 21**

Exchanges performed at 520C for 20 minutes after dips in either 48 mol % KNO<sub>3</sub> - 52 mol % KCl or 45 mol % KNO<sub>3</sub> - 55 mol % KCl

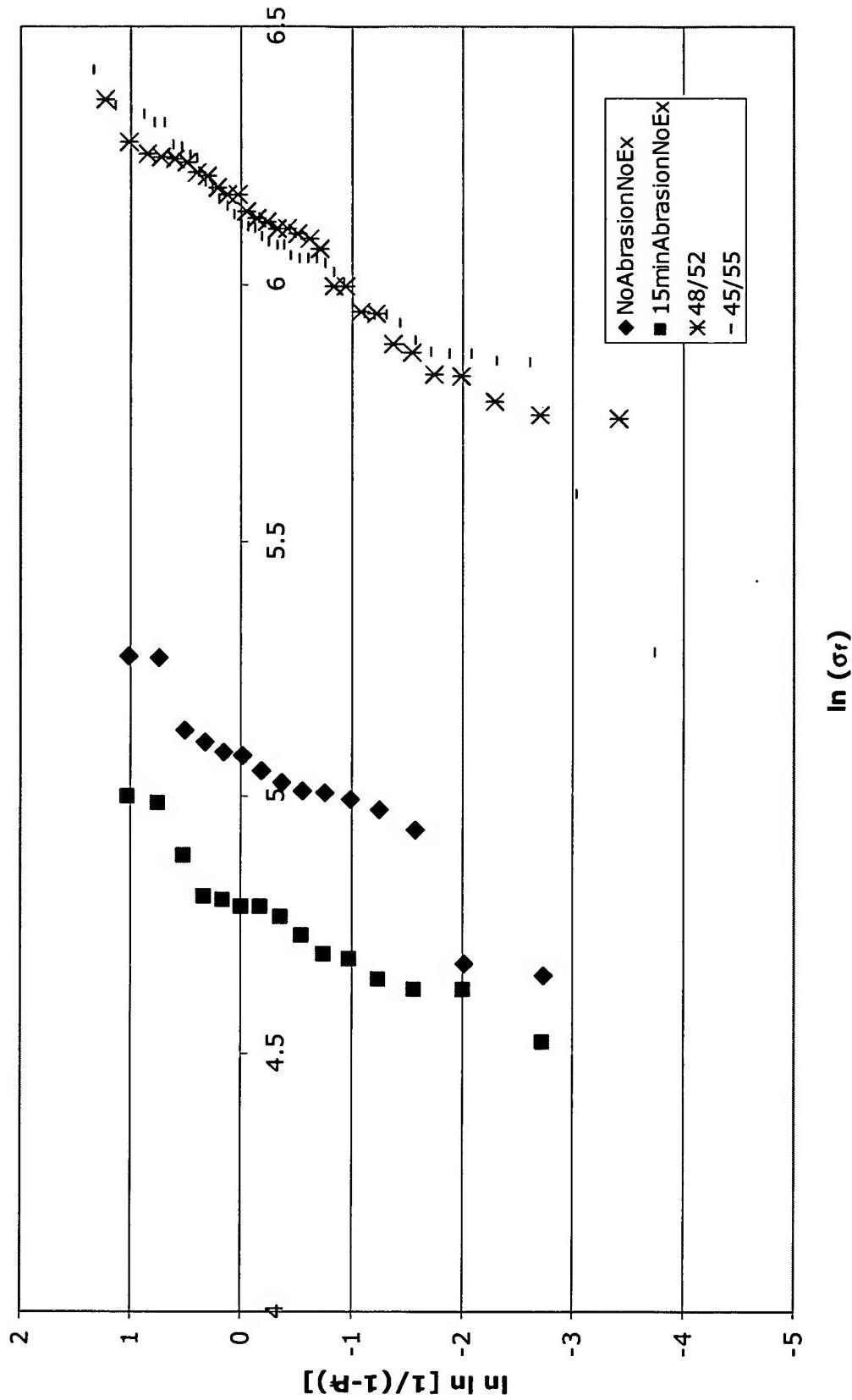
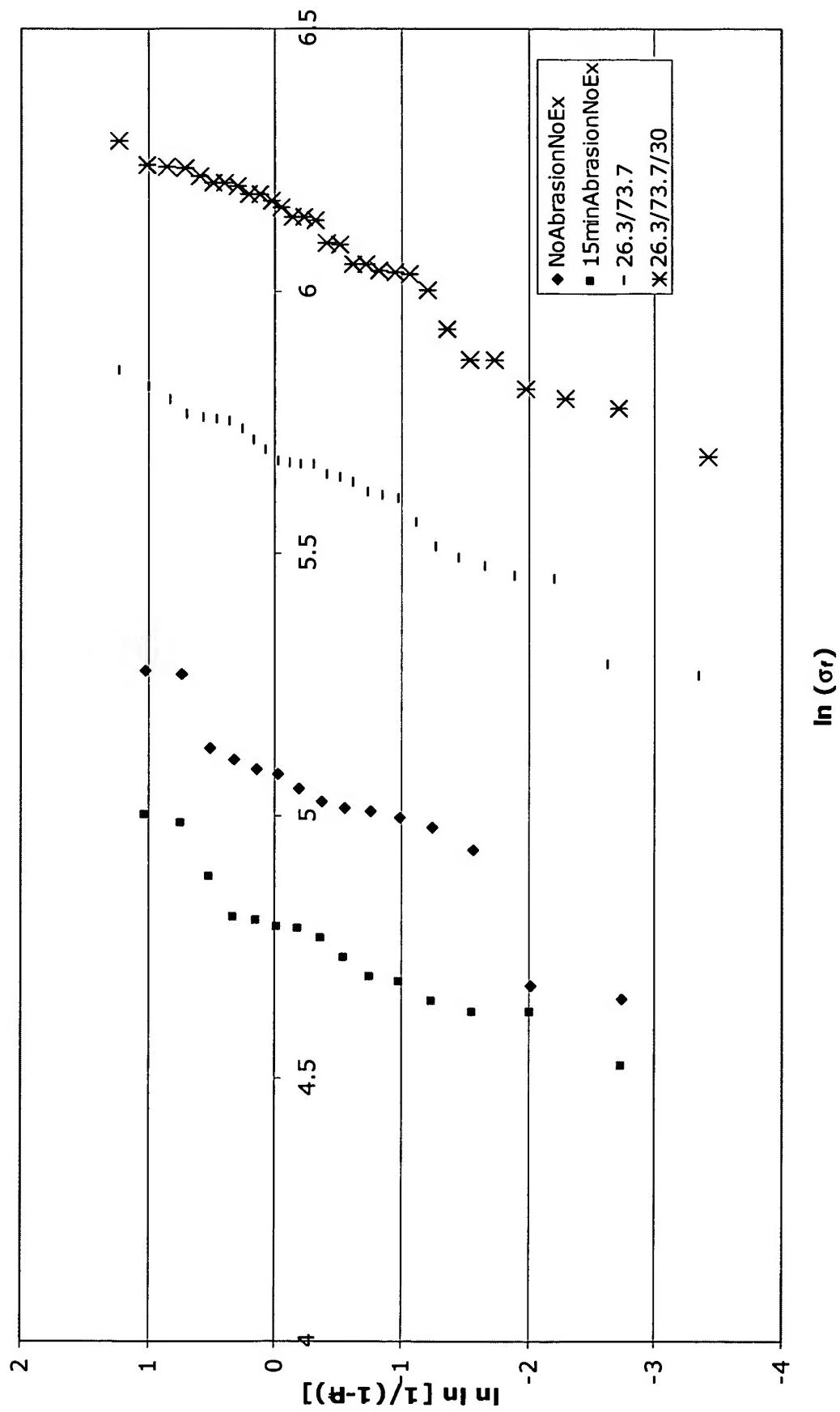


FIGURE 22

Rods exchanged at 520C for 20 minutes in 26.3 mol % K<sub>2</sub>SO<sub>4</sub>, 73.7 mol % KCl and 20.2 mol % K<sub>2</sub>SO<sub>4</sub>, 56.7 mol % KCl and 23.1 mol % KNO<sub>3</sub>.



**FIGURE 23**